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| Art Unit | : 3626 |
| Examiner | : Robert W. Morgan |
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# APPEAL BRIEF

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BY: _____
R. Christopher Ruppell

Date of Deposit: September 17, 2007

Honorable Commissioner:

This is an appeal from the Final Office Action dated April 16, 2007, rejecting claims 1, 3-9, 11-14, 18-21, and 43-61 of the instant application.

## (1) REAL PARTY IN INTEREST

The instant application has been assigned to Constellation Energy Group, Inc., the real party in interest in the instant appeal.

(2) RELATED APPEALS AND INTERFERENCES

Applicants previously filed a Notice of Appeal in this application on May 6, 2003, but did not file an Appeal Brief in support of that action. The application became deemed abandoned on December 16, 2003 for failure to file an Appeal Brief or provide an appropriate response to the Final Office Action dated February 6, 2003. On February 14, 2004 Applicants filed a Petition For Revival Of An Unintentionally Abandoned Application and a Request for Continued Examination in response to the Final Office Action dated February 6, 2003, reviving the unintentionally abandoned application.

(3) STATUS OF CLAIMS

Claims 1, 3-9, 11-14, 18-21, and 43-61 are pending in the application. Claims 2, 10, 15-17, and 22-42 were previously canceled.

Claims 1, 3-9, 11-14, 18-21, and 43-61 stand rejected. The rejection of claims 1, 3-9, 11-14, 18-21, and 43-61 is the subject of this Appeal.

(4) STATUS OF AMENDMENTS

Applicants filed their most recent amendment to the claims on January 8, 2007 amending claims 1, 11, 13, 14, 18, 44, and 52, no new claims were added or canceled by this amendment, which amendment was entered and considered by the Examiner, and was the subject of the Examiner's Final Rejection dated April 16, 2007. Applicants filed a Notice of Appeal on July 16, 2007 following the Examiner's Final Rejection dated April 16, 2007.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

Appellants' invention provides an innovative system and method for managing energy costs for an energy customer (consumer) by delivering to the customer an optimal (energy) consumption decision, whereby energy is received from at least two different energy sources to meet a

forecast load (total, forecasted energy demand of a customer for a given time period). In effect, the optimum consumption decision provides the customer with the lowest overall energy cost option for purchasing energy to meet their forecast load and includes the novel requirement that the total energy provided to satisfy the forecast load must be received from at least two different energy sources (e.g., grid, Distributed Generation, Demand-Side Management, alternative fuels).

With reference to some of the particular features that distinguish the invention from the art cited by the Examiner and pertinent to this appeal, the current invention requires meeting the forecast load (customer's energy needs) by energy from two or more energy sources necessarily requires that each energy source is satisfying a percentage (less than 100%) of the total energy requirement for the customer's forecasted load. Energy pricing data (per unit cost of energy received from a single energy source) is received from each of the at least two energy sources and is used to determine a price baseline (a customer optimized energy supply cost structure) and the optimum consumption decision. The price baseline is determined from the price point data from each energy source, the forecast load, and the determined percentage of the forecast load to be met by each energy source. Thus, the price baseline is an optimum energy supply cost structure (lowest energy cost to satisfy demand), such that the maximum percentage of the total forecast load, but always less than 100% of the total forecast load, may be received from the lowest cost energy source. The forecast load is determined from energy usage data (real-time) received from the customer which is used to create a current load shape and then comparing that current shape against historical load shapes to determine a future energy demand estimate. Thus, the current invention utilizes generally understood and standard analytical techniques employed for load forecasting based upon historical usage trends, but further combines and compares it with the real-time energy consumption information obtained from a customer during a particular time interval, providing analysis of the actual variations in usage by the individual energy consumer. Independent claim 1 is directed to a method for automatically managing energy costs for an energy customer and Independent claim 44 is directed to a system for managing energy costs for an energy customer both requiring the unique features identified above.

Independent claim 1 recites the method for automatically managing energy costs using metering data and pricing data, particularly requiring receiving a customer's metering data from a utility

meter, wherein the metering data is electronically transmitted from the utility meter (specification Paragraphs [0020], [0021], [0022], and FIG. 2); receiving pricing data from a plurality of sources of power wherein the pricing data is received electronically over a network (specification Paragraphs [0023], [0024], and FIG. 3); forecasting a forecast load based on the received metering data from the utility meter, wherein said forecasting includes the steps of creating a current load shape from said metering data, and comparing the current load shape to a load shape from a prior time period based on historical data (specification Paragraph [0025] and FIG. 4); determining a price baseline for a combination of the plurality of the sources of power, wherein the price baseline is determined by price point data for the plurality of sources of power, the forecast load and a percentage of the forecast load which will be met by each of the plurality of sources of power (specification Paragraphs [0026], [0027], and FIG. 4); determining an optimal consumption decision based on the received pricing data and the forecast load, wherein the consumption decision selects at least two of the plurality of sources of power to thereby reduce utility costs, and wherein said optimal consumption decision is calculated using an optimal cost curve derived from an optimization algorithm applied to the pricing data and the forecast load and derives a percentage of the forecast load that will be met by each of the plurality of sources of power (specification Paragraphs [0030], [0031], [0032], and FIG. 5); and delivering the optimal consumption decision to the customer via the network (specification Paragraphs [0030] and FIG. 5, [0038], [0039], and FIG. 7, [0020] and FIG. 1).

Independent claim 44 recites a system for managing energy costs, particularly requiring a server communicating with at least one utility meter, wherein said server is configured to record metering data received from said utility meter via a network, forecast a forecast load based on the received metering data from the utility meter, create current load shape from said metering data, and compare the current load shape to a load shape from a prior time period based on historical data (specification Paragraphs[0035], and [0037] through [0039], and FIG. 7; Paragraphs [0020], [0021], [0022], and FIG. 2; Paragraph [0025] and FIG. 4); wherein the server is further configured to receive pricing data from a plurality of sources of power from the network, determine an optimal consumption decision, and determine a price baseline for a combination of at least two of the plurality of sources of power from price point data of the plurality of sources of power received over the network, the forecast load and a percentage of the

forecast load which will be met by each of the plurality of sources of power (specification Paragraphs [0036] and [0038] and FIG. 7; [0030], [0031], [0032], and FIG. 5; [0025], [0026], [0027], and FIG. 4; [0023], [0024], and FIG. 3); and wherein the server is further configured to deliver the optimal consumption decision to a customer over the network (specification Paragraphs [0038], [0039], and FIG. 7, [0030] and FIG. 5, and [0020] and FIG. 1).

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Claims 1, 3-9, 11-14, and 18-21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (U.S. Pat. No. 6,047,274) and Takriti (U.S. Pat. No. 6,021,402) in view of "Forecasting load-duration curves" by Bruce et al.

B. Claims 43-61 under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (U.S. Pat. No. 6,047,274) in view of "Forecasting load-duration curves" by Bruce et al.

(7) ARGUMENT

*35 U.S.C. §103(a) Rejections*

A. Johnson et al. (U.S. Pat. No. 6,047,274) and Takriti (U.S. Pat. No. 6,021,402) in view of "Forecasting load-duration curves" by Bruce et al., either alone or in combination fail to teach or suggest all the claim limitations of the current invention and, therefore, do not render the invention of the current application obvious under 35 U.S.C. §103(a).

The issue is whether the Examiner has improperly rejected independent claim 1, from which claims 3-9, 11-14, and 18-21 properly depend under 35 U.S.C. §103(a) as being unpatentable over Johnson et al. (U.S. Pat. No. 6,047,274) and Takriti (U.S. Pat. No. 6,021,402) in view of "Forecasting load-duration curves" by Bruce et al.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. MPEP §2143.03, *In re Ryoka*, 180 U.S.P.Q. 580 (C.C.P.A. 1974). *See also In re Wilson*, 165 U.S.P.Q. 494 (C.C.P.A. 1970). As explained below, the cited

prior art either alone or in combination fails to teach or suggest all the claimed limitations of the current invention, as recited in independent claim 1 of the instant application, as follows: 1. "determining an optimal consumption decision", wherein the current invention makes the determination of an optimal energy consumption decision, such that the instant invention is not an auction process; 2. "a plurality of sources of power", "at least two of the plurality of sources of power", and "forecast load that will be met by each of the plurality of sources of power", wherein the current invention requires the use of two or more sources of power/utility providers/energy providers; 3. "determining a price baseline", wherein the current invention makes the determination of a price baseline from the at least two sources of power; 4. "percentage of the forecast load that will be met by each of the plurality of sources of power", wherein the current invention makes use of and derives a percentage of forecasted customer energy needs that will be met by each of the sources of power; and 5. "determining an optimal consumption decision...wherein the consumption decision selects at least two of the plurality of sources of power", wherein the current invention determines the optimal consumption decision based on the customer receiving energy from two or more sources of power (energy providers).

In general, the cited references provide an Auction process and system, wherein energy (i.e., power and natural gas) providers ("Bidders") submit bids to a centralized auction bidding moderator service ("Moderator") to provide energy to an end user and through this bidding process the lowest cost supplier is determined and notified of their selection. This is not the current invention that requires determination of an optimal consumption decision and the delivery of that determination to a customer. Further, the Auction process and system provided by the cited references does not require the use of at least two energy providers to satisfy the end user's energy needs, determining a price baseline from the at least two energy providers, nor the use of and/or deriving of the percentages of energy that will be supplied by multiple power providers. Finally, the Auction process and system does not utilize real-time data showing an end user's actual variations in usage to forecast energy needs.

For all the reasons stated herein, Appellant respectfully requests the reversal of the rejection of the independent claim 1 under 35 U.S.C. 103(a). If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious. MPEP §2143.03, *In re Fine*,

837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Appellant states that claims 3-9, 11-14, and 18-21 properly depend from independent claim 1. Therefore, Appellant respectfully requests the reversal of the rejection of the claims 3-9, 11-14, and 18-21 under 35 U.S.C. 103(a).

a. Johnson et al. (U.S. Pat. No. 6,047,274)

US Patent 6,047,274 (hereinafter "Johnson") teaches to providing "an auction service" wherein "providers supply energy (i.e., electric power or natural gas) to end users (or resellers) ...resulting from a bidding process between participating providers." (col. 6, line 1-6). The Auction or bidding process is "administered by a bidding service entity through operation of a central processor, a computer referred to as a bidding moderator (the "Moderator")." (col. 6, lines 8-10).

1. The Auction system taught by Johnson is not the automatic determination and delivery of an optimal energy consumption decision to a customer as taught by the instant application.

In contrast to the current invention claimed by the instant application, Johnson's disclosed embodiments in the specification and claimed inventions (independent claims) require multiple energy providers (Bidders) to submit bids (based on their rate to supply energy) to a Moderator for the competitive selection by the end user (typically, via a control computer which may or may not be separate from the Moderator) of the energy provider that will provide energy to the end user. (Johnson, Col. 9, lines 15-46). The bidders are required to formulate bids (Johnson, Col. 11, lines 26-27), that may be based on various factors, such as a forecasted load determined by the bidder, as disclosed by "(vi) the estimated amount of the energy required on a recurring basis by each applicable end user or set of end users." (Johnson, Col. 11, lines 39-40). Further, it is the Moderator that provides the bidders with end user energy usage data for forecasting and bid formulation purposes, "[T]o give bidders more precise data on which to base their bids, the Moderator can provide bidders with historical usage profile information for participating end users or groups of end users." (Johnson, Col. 13, lines 14-17). Thus, the Auction system of Johnson requires a bidding process enabled through communicative interaction between a

Moderator and bidders that provides information to the end user from which the end user may make the final consumption determination.

In contrast, the instant application teaches to a method and system for determining and delivering to a customer (end user) an optimal consumption decision based on received pricing data from at least two sources of power, a determined price baseline from these at least two sources of power, forecast load, and percentage of the forecast load that will be met by each of the plurality of sources of power, as disclosed in claim 1. As described previously in this Brief, from the instant application, FIGS. 1 through 5 illustrate and paragraphs [0020] through [0032] disclose a utility processing system 100, using a utility processor 102, that determines and delivers the optimal consumption decision 114 (output 112) to a customer. Thus, the current invention determines and delivers (provides) the customer with an optimal consumption decision and while information from multiple sources of power is being utilized by the present invention, it is not a bidding process being moderated such as that found in the Auction process provided by Johnson. For example, the amount of money for each unit of energy supplied by a source of power (received pricing data) may be a factor used to determine the optimal consumption decision, however, the instant invention is not the Auction system where bids from providers are received by the customer and the customer then makes the consumption determination, as disclosed in Johnson.

Johnson also requires that the bidders, which are completely separate from the end user and/or Moderator in the Auction system disclosed by Johnson, determine the forecast load based on historical usage data received by the bidders from the Moderator, and based on this information then formulate their bids that are submitted to the Moderator and passed on to the end user (customer). In contrast, the system 100 of the instant application, discloses that utility processor 102 receives metering data directly from the meters 106, determines the forecast load, and determines the optimal consumption decision 114, which is then delivered as shown in FIGS. 1 through 5 and disclosed in paragraphs [0020] through [0032]. Thus, the current invention teaches away from Johnson by teaching to a single functional point (utility processor 102) wherein information may be received and determinations made that can be delivered to the customer.

2. The Auction system taught by Johnson does not require use of two or more sources of power/utility providers/energy providers for determining and delivering the optimal consumption decision, as taught by the instant application.

On Pages 3, 4, 5, 8, 10, and 11, of the Final Office Action dated April 16, 2007, the Examiner cites Johnson, column 15, lines 15-27 in support of the argument that Johnson does teach to the use of two or more sources of power for receiving pricing data, determining price baseline, and determining the optimal consumption decision, which is then delivered to a customer, as taught by the instant application. The relevant language in Johnson is found at Column 14, line 64 through Column 15, line 27, which encompasses the Column 15, lines 15-27 citation by the Examiner, and sates the following:

> Most bidders participating in the auction would be expected to supply 100% of the electric power or natural gas needed by the end users for whom these bidders are selected as the current Provider. Some bidders, however, may wish to submit bids to supply a fixed quantity of power or natural gas to an end user or group of end users during a particular period of time, rather than commit to supply 100% of the power or natural gas this end user needs or actually consumes. The Moderator can accommodate this type of bid by prescribing standard units or blocks of power or natural gas that Providers can use when formulating such bids. The Moderator would consider such bids only for end users who wish to participate and only as part of an auction process in which the bids compared are those for identical units or blocks of power or natural gas. In the event that insufficient units or blocks of energy are offered, the Moderator could again rely on a default Provider, either for 100% of the end user's energy requirement or only for the shortfall needed.
>
> An end user could, under this approach, have more than one Provider delivering power or natural gas to his facilities during the same period of time. For example, a large end user with a need for 1000 kilowatts of power during every hour between 8:00 a.m. and 6:00 p.m., Monday through Friday, elects to participate in EPAS under the above unit or power block approach. Four Providers submit bids to supply (in order of the lowest-priced bids first) 600, 200, 200 and 500 kilowatts of power for the period between 9:00 a.m. and 10:00 a.m. each day. The relevant control computer (or the Moderator) selects the three Providers who bid 600, 200 and 200, respectively, on the basis of their low bids and the amount of power offered.

(Emphasis added). It is again clearly seen that Johnson is providing an Auction system, implemented through a bidding process in which two or more energy providers are submitting their bids. Thus, Johnson indicates that two or more providers are not required to provide energy to a customer in order to meet the customer's energy demand, but instead that two or more energy providers are submitting bids to a Moderator, in contrast to the current invention. To the extent that Johnson, from the above language, addresses the situation wherein two or more energy providers are meeting an energy demand, it is not similar to the customer's receipt of an optimal consumption decision determined from energy from two or more sources of power, as disclosed in the instant application. First, Johnson explicitly states that the expectation is for a Provider (single energy provider) to supply all energy requirement(s) to an end user. This teaches away from the required two or more sources of power disclosed in the instant application. Second, Johnson is requiring the Moderator, auction controller, to create an artificial construct ("Power Construct") of "standard units or blocks of power or natural gas" (*See above*) from which the Providers can formulate their bids, thereby placing them in a moderator required format for transmission to the Moderator. Thus, the Moderator is required to establish a power unit construct and a communication protocol to relay such information between the Moderator and Bidders that is not required by the current invention. Third, these Power Constructs are not being created based on a customer's energy needs as disclosed in the instant application, but instead upon limitations imposed by Providers, "[S]ome bidders, however, may wish to submit bids to supply a fixed quantity of power or natural gas to an end user or group of end users during a particular period of time, rather than commit to supply 100% of the power or natural gas this end user needs or actually consumes." (*See above*). Fourth, the bidding process can only compare bids that are identical, only those directed to the exact same Power Construct. The current invention does not compare bids. Finally, Johnson states, "Moderator would consider such bids only for end users who wish to participate and only as part of an auction process." (*See above*). The current invention does not use a Moderator for processing bids from Providers and does not make a determination of end user's who wish to participate in an auction process wherein Power Constructs are being bid upon.

3. The Auction system taught by Johnson does not determine a price baseline from two or more sources of power as required by the current invention.

On Page 3 and 13 of the Final Office Action, dated April 16, 2007, the Examiner argues that, "determining a price baseline for a combination of the plurality of the sources of power, wherein the price baseline is determined by price point data for the plurality of sources of power, the forecast load and a percentage of the forecast load which will be met by each of the plurality of sources of power", (emphasis added), as recited in claim 1 of the instant application, is met by Johnson. Particularly, the Examiner argues that this is met by the disclosure in Johnson found at Col. 10, lines 23-34, which states the following:

> (xiii) for those end users who so elect (assuming their selected Providers agree), the Moderator can prepare and transmit to each end user a consolidated billing statement, based on the actual energy usage data received by the Moderator from that end user's meter during an entire billing cycle and the winning bid data relating to all selected Providers who supplied electric power or natural gas to this end user during that billing cycle (i.e., consolidating billable charges from all Providers of electric power to such end user on one bill and consolidating billable charges from all Providers of natural gas to such end user on another bill).

(Emphasis added). The above disclosure in Johnson, does teach to providing a billing statement that consolidates billable charges from Providers. Billing statements are well known in the art, but they are only capable of looking back and providing information regarding past activities that have already occurred. However, the price baseline determination, as disclosed in paragraphs [0026] and [0027] of the instant application, is not a billing statement, but instead a part of the process for determining an optimal consumption decision to be delivered to a customer. Thus, Johnson is referring to a "past-looking" statement of energy providing and usage information, while the price baseline determination of the current invention is part of the forecasting of future energy needs for a customer. Further, providing "winning bid data" (*See above*), which is disclosed in Johnson and argued by the Examiner as a statement of information relating to the Providers that actually provided energy to the end user during the billing cycle, is not similar to

the determination of a price baseline from the two or more sources of power, as required in claim 1 of the instant application.

4. The Auction system taught by Johnson does not teach use of a (derivation of a) percentage of forecasted customer energy needs that will be met by each of the at least two sources of power as required by the current invention.

As stated above, on Page 3 and 13 of the Final Office Action, the Examiner argues that the price baseline determination from "a combination of (at least two of (claim 44)) the plurality of the sources of power...by (from (claim 44)) price point data for the plurality of sources of power, the forecast load and a percentage of the forecast load which will be met by each of the plurality of sources of power," (emphasis added), as recited in independent claims 1 and 44 of the instant application, is met by Johnson. Particularly, the Examiner argues that this is met by the disclosure in Johnson found at Col. 10, lines 23-34, which states the following:

> (xiii) for those end users who so elect (assuming their selected Providers agree), the Moderator can prepare and transmit to each end user a consolidated billing statement, based on the actual energy usage data received by the Moderator from that end user's meter during an entire billing cycle and the winning bid data relating to all selected Providers who supplied electric power or natural gas to this end user during that billing cycle (i.e., consolidating billable charges from all Providers of electric power to such end user on one bill and consolidating billable charges from all Providers of natural gas to such end user on another bill).

(Emphasis added). Then the Examiner specifically states, "[T]his suggests that the winning bid includes all selected Providers (more than one Provider suggesting a percentage) who supply electric power or natural to user." (Pages 3 and 13). From the discussion above, this disclosure in Johnson does teach to providing a billing statement that consolidates billable charges from Providers. Billing statements are well known in the art, but they are only capable of looking back and providing information regarding past activities that have already occurred, not forecasting or being used in the determination of a future energy needs and consumption decisions. Also, from the discussion in Section (7)(A)(a)(2) above, Johnson specifically teaches

away from using multiple energy providers, but where forced to accommodate such bidders who refuse to supply an end user's total energy needs, Johnson requires implementation of an artificial construct bidding system, for which end user's must subscribe or cannot participate in and bidders must formulate their bids based on the specific conditions of the construct or their bids will not be considered. No disclosure in Johnson teaches to the determination of a price baseline being made, at least in part, from a "percentage of the forecast load which will be met by each of the plurality of sources of power," as recited in independent claims 1 and 44 of the instant application.

5. The Auction system taught by Johnson does not determine an optimal consumption decision from the selection of at least two sources of power as required by the current invention.

On Page 4 of the Final Office Action, dated April 16, 2007, the Examiner argues that Johnson teaches "the claimed determining an optimal consumption decision based on the received pricing data and a predictable load, wherein the consumption decision selects one of the plurality of sources of power..." First, Appellant notes that this statement includes "one" of the plurality of sources of power. Appellant submits that the claim language of claim 1 was successfully amended to recite, "at least two of the plurality of source of power," in a Response filed by Appellant on January 9, 2007. Assuming this is merely oversight, and the Examiner intended their argument to state the correct claim language, Appellant directs attention to Section (7)(A)(a)(2) of the Brief. In Section (7)(A)(a)(2) it is disclosed that Johnson specifically teaches away from using multiple energy providers, but where forced to accommodate such bidders who refuse to supply an end user's total energy needs, Johnson requires implementation of an artificial construct bidding system, for which end user's must subscribe or cannot participate in and bidders must formulate their bids based on the specific conditions of the construct or their bids will not be considered. No disclosure in Johnson teaches to the determination of an optimal consumption decision from the selection of at least two sources of power as required by the current invention.

b. Takriti (U.S. Pat. No. 6,021,402)

US Patent 6,021,402 (hereinafter "Takriti") discloses a risk management system for power providers that involves forecasting energy needs in the context of power-trading. This system is directed to the scheduling of operation of generating units of an electric utility taking into account load forecast to be met, fuel prices, different scenarios, and different time frames. The Examiner offers Takriti to cure the defects of Johnson, which the Examiner states, on Page 5 of the Final Office Action, dated April 16, 2007, fails to expressly teach the following: 1. the claimed optimal consumption decision is calculated using an optimal cost curve derived from an optimization algorithm applied to the pricing data and forecasting load; and 2. the claimed forecasting a forecast load based on the received metering data from the utility meter, wherein said forecasting includes the steps of creating a current load shape from said metering data, and comparing the current load shape to a load shape from a prior time period based on historical data.

The "defects" of Johnson as indicated above in this Section 7 are not addressed or cured by Takriti. Nowhere does Takriti teach or suggest the previously recited claim limitations of independent claim 1.

c. "Forecasting load-duration curves" by Bruce et al.

"Forecasting load-duration curves" by Bruce et al (hereinafter "Bruce") discusses the forecasting of electricity load duration curves (i.e., the distribution of loads over a given period of time). Bruce focuses on the macro-scale electricity provider environment, for example countries such as New Zealand, and this forecast modeling allows for the prediction of electrical loads at different time intervals across several electrical power generation facilities. The Examiner offers Bruce to cure the defects of Johnson and Takriti, which the Examiner states, on Page 6 of the Final Office Action, dated April 16, 2007, fails to expressly teach the following: 1. the claimed forecasting a forecast load, wherein said forecasting includes the steps of creating a current load shape from said metering data, and comparing the current load shape to a load shape from a prior time period based on historical data.

The "defects" of Johnson as indicated above in this Section 7, that are not addressed or cured by Takriti, are not addressed or cured by Bruce. Nowhere does Bruce teach or suggest the previously recited claim limitations of independent claim 1.

d. Conclusion of Section 7, sub-section A.

When viewed either alone or in combination, as suggested by the Examiner in the latest Office Action, these prior art references do not teach or suggest all the claim limitations recited in independent claim 1 and therefore do not render obvious the invention of the instant application. In light of the above, it is respectfully submitted that Johnson and Takriti in view of Bruce, fails to disclose, teach, or even suggest elements particularly required by Appellant's independent claim 1. As stated, claims 3-9, 11-14, and 18-21 properly depend from claim 1. As a result, the Examiner's rejection of claims 1, 3-9, 11-14, and 18-21 under 35 U.S.C. 103(a) should be reversed.

B. Johnson et al. (U.S. Pat. No. 6,047,274) in view of "Forecasting load-duration curves" by Bruce et al. do not render the invention of the current application obvious under 35 U.S.C. §103(a).

The issue is whether the Examiner has improperly rejected independent claim 44, from which claims 45-61 properly depend, and claim 43 which properly depends from independent claim 1, under 35 U.S.C. §103(a) as being unpatentable over Johnson et al. (U.S. Pat. No. 6,047,274) (hereinafter "Johnson") in view of "Forecasting load-duration curves" by Bruce et al (hereinafter "Bruce").

As stated previously, "[T]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP §2143.03, *In re Ryoka*, 180 U.S.P.Q. 580 (C.C.P.A. 1974). *See also In re Wilson*, 165 U.S.P.Q. 494 (C.C.P.A. 1970). As explained above in Section (7)(A), and for all the same reasons, claim 43 which properly depends from independent claim 1 is allowable and the rejection under 35 U.S.C. §103(a) should

be reversed. Further, as explained above in Section (7)(A), and for all the same reasons, the cited prior art either alone or in combination fails to teach or suggest all the claimed limitations of the current invention, as recited in independent claim 44 of the instant application, as follows: 1. "determining an optimal consumption decision", wherein the current invention makes the determination of an optimal energy consumption decision, such that the instant invention is not an auction process; 2. "a plurality of sources of power", "at least two of the plurality of sources of power", and "forecast load that will be met by each of the plurality of sources of power", wherein the current invention requires the use of two or more sources of power/utility providers/energy providers; 3. "determining a price baseline", wherein the current invention makes the determination of a price baseline for a combination of at least two of the plurality of sources of power; and 4. "percentage of the forecast load that will be met by each of the plurality of sources of power", wherein the current invention makes use of and derives a percentage of forecasted customer energy needs that will be met by each of the sources of power.

In general, the cited references provide an Auction process and system, wherein energy (i.e., power and natural gas) providers ("Bidders") submit bids to a centralized auction bidding moderator service ("Moderator") to provide energy to an end user and through this bidding process the lowest cost supplier is determined and notified of their selection. This is not the current invention that requires determination of an optimal consumption decision and the delivery of that determination to a customer. Further, the Auction process and system provided by the cited references does not require the use of at least two energy providers to satisfy the end user's energy needs, determining a price baseline from the at least two energy providers, nor the use of and/or deriving of the percentages of energy that will be supplied by multiple power providers. Finally, the Auction process and system does not utilize real-time data showing an end user's actual variations in usage to forecast energy needs.

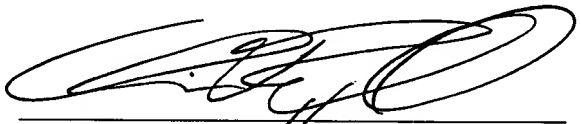
For all the reasons stated above, Appellant respectfully requests the reversal of the rejection of the independent claim 44 under 35 U.S.C. 103(a). If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious. MPEP §2143.03, *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Appellant states that claim 43 properly depends from independent claim 1, and claims 45-61 properly depend from independent claim

44. Therefore, Appellant respectfully requests the reversal of the rejection of the claims 43 and 44-61 under 35 U.S.C. 103(a).

When viewed either alone or in combination, as suggested by the Examiner in the latest Office Action, these prior art references do not teach or suggest all the claim limitations recited in independent claim 44 and therefore do not render obvious the invention of the instant application. In light of the above, it is respectfully submitted that Johnson in view of Bruce, fails to disclose, teach, or even suggest elements particularly required by Appellant's independent claim 44. As stated, claims 45-61 properly depend from claim 44, and claim 43 properly depends from claim 1. As a result, the Examiner's rejection of claims 43-61 under 35 U.S.C. 103(a) should be reversed.

For all of the reasons set forth above, Appellants respectfully but forcefully contend that each of the claims cited above is patentable. Therefore, reversal of the rejections appealed herein is courteously solicited.

Respectfully submitted,



September 17, 2007
Date

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(8) CLAIMS APPENDIX

1. A method for automatically managing energy cost using metering data and pricing data, the method comprising the steps of:

receiving a customer's metering data from a utility meter, wherein the metering data is electronically transmitted from the utility meter;

receiving pricing data from a plurality of sources of power, wherein the pricing data is received electronically over a network;

forecasting a forecast load based on the received metering data from the utility meter, wherein said forecasting includes the steps of creating a current load shape from said metering data, and comparing the current load shape to a load shape from a prior time period based on historical data;

determining a price baseline for a combination of the plurality of the sources of power, wherein the price baseline is determined by price point data for the plurality of sources of power, the forecast load and a percentage of the forecast load which will be met by each of the plurality of sources of power;

determining an optimal consumption decision based on the received pricing data and the forecast load, wherein the consumption decision selects at least two of the plurality of sources of power to thereby reduce utility costs, and wherein said optimal consumption decision is calculated using an optimal cost curve derived from an optimization algorithm applied to the pricing data and the forecast load and derives a percentage of the forecast load that will be met by each of the plurality of sources of power; and

delivering the optimal consumption decision to the customer via the network.

2. (canceled)

3. The method of claim 1, wherein the utility meter comprises an electric meter.

4. The method of claim 1, wherein the utility meter comprises a gas meter.

5. The method of claim 1, wherein the utility meter comprises a water meter.

6. The method of claim 1, wherein the metering data is electronically transmitted from the utility meter via a telephone line.

7. The method of claim 1, wherein the pricing data includes grid price point data, distributed generation price point data, demand-side management price point data and alternative fuel price point data.

8. The method of claim 1, wherein the network is the Internet.

9. The method of claim 1, further comprising determining a price baseline for at least one of the plurality of the sources of power, as a function of the forecast load and of price point data for the at least one of the plurality of sources of power.

10. (canceled)

11. The method of claim 1, wherein the forecasting step further comprises receiving additional forecasting data, such as weather data and forecasting a forecast load based on the received metering data from the utility meter and the weather data.

12. The method of claim 1, wherein the determining step further comprises receiving financial market data and determining an optimal consumption decision based on the received pricing data, the forecast load and the financial market data.

13. The method of claim 11, wherein the additional forecasting data is received via the Internet.

14. The method of claim 11, wherein the optimal consumption decision is further based, in part, on the additional forecasting data.

15-17. (canceled)

18. The method of claim 1, further including allowing the customer to choose to receive power from one or more of the plurality of sources of power.

19. The method of claim 1, further including electronically delivering a bill for power from one or more utilities to the customer.

20. The method of clam 19, further including allowing the customer to pay the bill electronically.

21. The method of claim 1, further including automatically implementing the optimal consumption decision, wherein the automatically implementing includes automatically providing power from at least one of the plurality of sources of power to the customer based upon the optimal consumption decision.

22-42. (canceled)

43. The method of claim 1, further comprising the step of implementing a feedback system for optimally meeting an actual load when the actual load deviates from the forecasted load.

44. A system for managing energy cost, comprising:

a server communicating with at least one utility meter, wherein said server is configured to record metering data received from said utility meter via a network, forecast a forecast load based on the received metering data from the utility meter, create a current load shape from said metering data, and compare the current load shape to a load shape from a prior time period based on historical data;

wherein the server is further configured to receive pricing data from a plurality of sources of power from the network, determine an optimal consumption decision, and determine a price baseline for a combination of at least two of the plurality of sources of power from price point

data of the plurality of sources of power received over the network, the forecast load and a percentage of the forecast load which will be met by each of the plurality of sources of power; and

wherein the server is further configured to deliver the optimal consumption decision to a customer over the network.

45. The system of claim 44, wherein the at least one utility meter comprises an electric meter.

46. The system of claim 44, wherein the at least one utility meter comprises a gas meter.

47. The system of claim 44, wherein the at least one utility meter comprises a water meter.

48. The system of claim 44, wherein the metering data is electronically transmitted from the utility meter via a telephone line.

49. The system of claim 44, wherein the pricing data includes grid price point data, distributed generation price point data, demand-side management price point data and alternative fuel price point data.

50. The system of claim 44, wherein the server comprises at least one central server communicatively linked to at least one regional server.

51. The system of claim 50, wherein the at least one central server is configured to receive the pricing data from the network, receive the metering data from the at least one regional server, determine the optimal consumption decision and transmit the optimal consumption decision to the at least one regional server.

52. The system of claim 50, wherein the at least one regional server is configured to receive the metering data from the at least one utility meter, transmit the metering data to the at

least one central server, receive the optimal consumption decision from the at least one central server and transmit the optimal consumption decision to the customer.

53. The system of claim 44, wherein the network comprises the Internet.

54. The system of claim 44, wherein the network comprises a wide area network.

55. The system of claim 44, further including allowing the customer to choose to receive power from one or more of the plurality of sources of power.

56. The system of claim 44, wherein the forecast of a forecast load further comprises receiving additional forecasting data, such as weather data and forecasting a forecast load based on the received metering data from the utility meter and the weather data.

57. The system of claim 44, wherein the optimal consumption determination further comprises receiving financial market data and determining an optimal consumption decision based on the received pricing data, the forecast load and the financial market data.

58. The system of claim 44, further including automatically implementing the optimal consumption decision, wherein the automatically implementing includes automatically providing power from at least one of the plurality of sources of power to the customer based upon the optimal consumption decision.

59. The system of claim 44, further including electronically delivering a bill for power from one or more utilities to the customer.

60. The system of claim 59, further including allowing the customer to pay the bill electronically.

61. The system of claim 44, further comprising a feedback system that is implemented for optimally meeting an actual load when the actual load deviates from the forecasted load.

(9) EVIDENCE APPENDIX

None

(10) RELATED PROCEEDINGS APPENDIX

None

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